

## PROJECT SIREN (Site for Innovative Research on monitored Natural attenuation)

This report describes the successful completion of Phase 1 of Project SIREN (Site for Innovative Research on Monitored Natural Attenuation), a collaborative project with Shell Global Solutions, and AEA Technology Environment to promote the development and understanding of monitored natural attenuation in the UK, through field scale R&D projects at a selected site. The aim of Phase 1 was to locate a site which could potentially allow the demonstration of natural attenuation under UK conditions, and act as a site for the long term study of innovative ways of assessing natural attenuation processes.

The project team developed criteria for site selection, which were approved by the Agency. Over 200 sites were then considered in the initial sift and only 5 sites were considered possible candidates. The main difficulty was finding a site under which there was a contaminated minor aquifer with a consolidated formation. Only 41 sites complied with this criterion, although only 5 were found to comply with the remaining 10 criteria. Of the 5 short listed sites, 3 were selected for further evaluation after consultation with the Agency. The findings of the further evaluation were as follows:

An operating Chemical Plant in the North West of the UK was identified as a potential site. It was found to comply with almost all of the site selection criteria. The site owners have given their permission for Phase 2 to go ahead and in principle for this site to be used as a Demonstration Site for 3-5 years subject to certain conditions of confidentiality and safety. We therefore propose in Phase 2 to focus on 1 or 2 plumes on the Chemical Plant, and obtain sufficient information to evaluate MNA in these plumes, to level suitable for Project SIREN.

The project team has conducted negotiations with the CLAIRE (Contaminated Land Applications in the Real Environment) initiative. The project has already been considered in principle by the CLAIRE board and received a positive response. CLAIRE will formally consider accepting SIREN at their Board meeting in January 2000.

This R&D technical summary relates to information from R&D Project P2-177 contained in the following output:

R&D Technical Report P358 "Project SIREN – Phase 1 Report"

Internal Status: Released to Regions  
External Status: Released to Public Domain

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Copies of R&D Technical Report P358 are available internally from the Regional Libraries/Management Support Officers and externally from WRc plc (Tel: 01793 865138 Fax: 01793 514562).

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